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ARIZONA MEDICINE
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Original ARTICLES

TREATMENT OF STRABISMUS

Paul Henry Case, M.D.
Phoenix, Arizona

THE TREATMENT of strabismus is so poorly understood by many practitioners outside the practice of Ophthalmology that I wish to take this opportunity to discuss with physicians in other fields the necessity of early diagnosis and early treatment of this condition. Rarely a week goes by but that I see one or two cases of strabismus who have been told by physicians, well-meaning friends, or by relatives that the condition is one which the child will outgrow and that no treatment is need. This is seldom the case and the vast majority of these cases are allowed to drift with no treatment or without adequate treatment. Thus, valuable time is lost, for, the earlier the strabismus is treated, the more favorable are the end results. These laymen feel that the abnormal conditions will be outgrown because they knew of some case in which, as the child grew older, the condition seemed to improve. It is true that in time often there is some decrease in the actual degree of squint. However, it must be remembered that in dealing with strabismus we have two important aspects: The first aspect is the functional, the ability of the individual to fuse the images of the two eyes together and thus use the two eyes together. The second aspect is the cosmetic appearance.

The principles of binocular fixation and stereopsis must be known to properly understand why early treatment is so very important. We all know that when the axes of both eyes are fixed on the same image, which they normally do, both eyes function together.

Those of us with normal eyes fuse the images of the two eyes together, and this gives us not only fusion but stereopsis, which is commonly known as depth perception. To appreciate the importance and value of stereopsis, one has only to close one eye and try to judge distance while driving a car, walking up and down steps, or reaching for something away from us, to see how poor one's judgment is when only one eye is being used.

When one eye is looking straight at an object and the other eye is either diverging or converging, one of two things happen. Either a person has diplopia, which happens rather frequently after head injuries and cerebral accidents or, secondly, the vision in the eye which is not fixing is suppressed, and the person has monocular vision.

It is this ability to suppress which enables the individual with strabismus to keep from seeing double all the time. Thus, when a small child has an eye which is either converging or diverging, the child learns to suppress the vision in that eye. The parents often feel that the child's eyes are not bad because he seems to see well enough. If the vision in the good eye is normal, the parents have no reason to believe that his vision is impaired. This is also why parents are so often told to forget about the eyes. It is true that he is probably seeing well with the one eye that is fixing. They do not realize that, as a result of suppression, the vision in the non-fixing eye becomes impaired. It is only when a careful visual checkup is taken of the child that the poor vision in the non-fixing eye is rec-

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ognized. Also, competent examination is needed in order that the suppression be recognized.

To understand why strabismus may be present, one must know the anatomy and physiology of vision and eye muscles. There are three different factors which may cause strabismus to be present.

The first factor is mechanical in which the stronger muscle is pulling the eye either in or out and its antagonist is weaker, and thus the strabismus occurs. The second factor may be neurogenic due to improper innervation. The third factor is the accommodative factor. The muscle of accommodation or ciliary muscle is supplied by the third nerve. In turn, the ciliary muscle is used to overcome the hyperopia by increasing the refractive power of the lens. The third nerve, one will recall, also supplies the internal rectus but does not supply the lateral rectus. Therefore, when one over accommodates to overcome the hyperopia, the third nerve is stimulated; thereby, overstimulating the internal rectus muscle with a resulting convergence strabismus. However, when the hyperopia is corrected with glasses, thereby relieving the strain on the ciliary muscle, the over-stimulus to the third nerve is no longer necessary and often the eyes will straighten. Unless there is an inherent amblyopia, when the eyes are straight, binocular vision is often obtained and suppression is overcome. However, as long as the eye does converge, suppression is necessary to keep from having diplopia.

Divergence is frequently associated with myopia and the correction of myopia will often hold the eyes in line.

Strabismus may be treated by wearing glasses to relieve the over-convergence or divergence. The use of occlusion of the fixing eye will build up the vision in the converging or diverging eye by making the patient use this eye. A prerequisite for fusion is good vision in each eye. However, after the age of seven years, occlusion is of very little or no value. When the visual acuity of both eyes is equal, the patient should be able to use both eyes together unless there is a fusional mal-development. If the eyes are still not straight, surgery is indicated to put the eyes in alignment. In cases of failure, it must be remembered that a certain percentage of strabismus cases will not fuse because of the congenital lack of fusion power. It must particularly be remembered that fusion is developed between the ages of five and six years of age. Thus, if the vision is not good in each eye and the eyes straightened by the age of six years, the prognosis for a good functional result is not good. However, even though fusion is not possible, surgery does put the eyes cosmetically straight which is very important. The results of surgical treatment of strabismus are constantly improving as a result of constant study by ophthalmic surgeons. Complications are much rarer, as a result of improved post and preoperative care and better anesthesia technique.

In summary, if these facts were more widely known and cases brought in for early diagnosis and treatment, the end results of our efforts would be vastly improved as to the psychological, visual, fusional, and cosmetic effect.

SOME FACTORS AFFECTING THE DIAGNOSIS OF CARCINOMA OF THE STOMACH*

Ross Golden, M.D.
New York, New York

INTRODUCTION

CARCINOMA of the stomach is a perennial problem in medicine, and a constant challenge to all doctors who deal with abdominal symptoms. Two direct methods of attacking the diagnostic aspects of this problem are x-ray and gastroscopy. These two methods should not be regarded as rivals but as complementary, each having its particular advantages and limitations. This discussion will deal with certain fundamentals involved in the detection of cancer of the stomach by x-ray procedures which should be familiar to all practitioners of medicine as well as to those whose job it is to use this method of examination.

Carcinoma of the stomach can be detected by x-ray methods only when it produces a recognizable modification of the form or the movements of the stomach. This depends upon two factors: (1) the gross growth characteristics of the neoplasm, and (2) its location in the stomach. The latter will be discussed first.

LOCATION OF THE GROWTH IN THE STOMACH

A study of the x-ray films of 315 proved cases of carcinoma of the stomach seen at the Presbyterian Hospital in New York showed that approximately 75 per cent arose in the antrum, 20 per cent in the body or media, and 5 per cent in the fundus. The fundus may be defined as that portion of the stomach lying roughly above the level of the cardiac orifice, the body or media as that portion between the cardiac orifice and the incisura angularis, and the antrum as the portion which turns to the right and extends to the pylorus. It is apparent that the great majority of carcinomas arise in the lower half of the stomach. This is the motor portion, accessible to palpation and pressure under the fluoroscope, where abnormalties of form and disorders of movement can be most easily demonstrated. Carcinomas of the fundus in general are much more difficult to detect and present technical problems beyond the scope of this discussion.

GROSS GROWTH CHARACTERISTICS

Carcinoma of the stomach arises in the mucous membrane but grows in different ways in different individuals. Classification of these growths according to the microscopic appearance of the cells is useless from the standpoint of understanding the effect of the neoplasm on the stomach wall. Furthermore, I am informed that the characteristics of the cells may vary in different parts of the growth. On the other hand the manner in which the growth involves the wall is of great importance. This – i.e. the gross growth characteristics – is the basis of Stout's Classification of Carcinoma of the Stomach (Golden and Stout).

1. Fungating
2. Penetrating
3. Spreading
   a. Superficial type.
   b. Linitis Plastica type.
4. Advanced, unclassifiable.

Fungating growths were present in 26 per cent of 342 cases seen in the department of Surgical Pathology at the Presbyterian Hospital between 1937 and 1949. This type forms a mass projecting into the lumen. It may reach a large size before it penetrates into the submucosa, and it metastasizes late. It may or may not ulcerate.

The **penetrating** type apparently extends through all layers of the stomach wall to the serosa early in its development. It destroys and replaces the muscle. It invariably ulcerates. This type was found in 32 per cent of 342 cases.

The **superficial spreading** type extends along the wall in the mucosa and submucosa and in some cases is limited to the mucous membrane. It may produce tiny nodular elevations on the surface. It may ulcerate. This is the type of carcinoma found in the mucous membrane adjacent to the margin of some gastric craters which have the structural characteristics of benign peptic ulcers. The new growth may completely encircle the crater but usually involves only a portion of its circumference. The carcinoma adjacent to the benign crater may itself ulcerate producing a double or a lobulated cra-

*From the Radiological Service of Presbyterian Hospital, and the Department of Radiology of the College of Physicians & Surgeons, New York. Read before Arizona Medical Ass'n., Tucson, Arizona, April 29, 1953.

ter shadow. In its later stages the malignant cells pass to the serosa through the muscularis without destroying or replacing the muscle cells. In one instance the mucosa of the entire stomach was replaced by carcinoma, with malignant cells lying among the muscle bundles of the hypertrophied muscularis; this stomach expelled barium rapidly but the contractions were unlike flexible peristaltic waves. In other instances a slight stiffening or flattening of the wall was present at the site of involvement of a relatively small area with no extension into the muscularis itself. The reason for this phenomenon is not clear.

Superficial spreading carcinoma comprised 11 per cent of 342 cases, of which approximately four-fifths were associated with ulceration, either with a peptic ulcer or with an excavation in the cancer itself. The abnormality is more easily detected if an excavation in the carcinoma is present. As a result of follow-up observations on some of the early cases, Dr. Stout believes the prognosis is better in this type of cancer than the average of all cancers of the stomach.

The **Linitis Plastica** type of spreading carcinoma extends along the wall in the submucosa, the muscle coat and subserosa. It does not destroy the mucosa until very late in the disease. It is often associated with high stiff mucosal folds, closely resembling those associated with gastritis in some cases both on x-ray and gastroscopic examination. The malignant cells stimulate the growth of fibrous tissue in most cases, which may vary from very slight to extreme. The Linitis Plastica type of carcinoma was found in 6 per cent of 342 cases.

Dr. Stout concludes his classification with the group of carcinomas which are too far advanced to be classified under the above headings. This group comprised 25 per cent of 342 cases.

It is quite obvious that the problem of detection of the carcinoma by x-ray methods is different in these groups.

GROWTH CHARACTERISTICS AND THE X-RAY EXAMINATION

The fungating carcinoma is the easiest of all to detect by x-ray methods because of the mass which produces a filling defect in the barium shadow. It may be simulated by any mass which projects into the lumen from the stomach wall, for example a small leiomyoma, a polyp or a localized mass of so-called giant mucosal folds. If the fungating carcinoma has ulcerated it is unlikely to be confused with another growth.

The penetrating carcinoma is easily detected because of its excavation. The problem is to differentiate it from a benign gastric ulcer. This will be discussed later. This growth replaces muscle and stiffens the wall over the involved area.

Superficial spreading carcinoma extending along the wall and replacing the mucosa sometimes produces small nodular elevations on the surface and at least in many cases obliterates peristalsis over the involved area in spite of the fact that the muscle has not been destroyed. It often causes a localized segmental spasm of the muscularis manifested by an incisura. Small nodules on the mucosa may also be produced by gastritis.

This is the type of carcinoma sometimes found adjacent to an excavation which has all the pathological characteristics of a benign peptic ulcer. The typical benign ulcer extends through all coats of the stomach and has its base on or beyond the serosa. The depth of the benign crater is usually relatively great as compared to its diameter. Its margins are often undermined. The mucosal folds radiating toward it often appear to extend into the crater.

The excavation in the penetrating or superficial spreading carcinoma is shallow with sloping saucer-like margins, without undermining, and appears to be intramural rather than extending through the wall. The mucosal folds radiate toward but usually stop short of the crater. Some benign peptic ulcers are shallow and do not penetrate through the wall, and for this reason unfortunately the differential diagnosis cannot be made with absolute certainty in some instances. Ulceration may occur in superficial spreading carcinoma arising in the mucosa adjacent to a benign crater. This may produce a bilobed or trilobed crater.

A differential diagnosis between a penetrating ulcer and an ulcerating superficial spreading carcinoma cannot be made with certainty. Under some circumstances a trial of medical treatment is advisable on the theory that the benign ulcer will reduce in size during a period of two to three weeks. Unfortunately, the excavation in some carcinomas will fill in to a certain extent with carcinoma tissue when the digestive power of the gastric juice is reduced. However, the two types of ulcer respond dif-

ferently. The benign crater is usually reduced to one-half its previous size or less in three weeks; it diminishes in transverse diameter as well as in depth. The crater in the carcinoma reduces somewhat in depth but changes very slightly in transverse diameter. Failure of a crater to behave properly under treatment can be taken as evidence in favor of malignant disease.

The Linitis Plastic type of carcinoma is the most subtle, difficult and dangerous of all. Because it infiltrates to and along the subserosa, it metastasizes relatively early through the lymphatics and spreads over the peritoneum. Because the muscle is not destroyed, the wall is not stiffened until very late and even when the growth is extensive apparently normal peristaltic waves pass along the stomach wall. In some cases the mucosal folds may be obliterated, but more frequently they are elevated in a manner simulating the effect of gastritis polyposa. In such cases gastroscopy discloses large folds of apparently intact mucosa.

The amount of fibrous tissue associated with the Linitis Plastica tumor cells in the wall varies greatly in different individuals. In one case practically no fibrosis was present but the tumor cells spread through the wall in typical Linitis Plastica fashion. In well advanced cases the mucosal folds are large and stiff, and pressure films may show the creases between the folds radiating from a point which resembles a crater shadow but which is not an ulcer. It is my impression that, when fibrosis is marked, the inner surface of the stomach is more likely to be abnormally smooth and to resemble the rare cases of atrophic gastritis with very few mucosal folds. Its lesser curvature margin may show fine irregularities. The more the fibrosis, the more the stomach becomes diminished in size with reduced expansibility or distensibility when a barium preparation is swallowed or when air is introduced for gastroscopy.

It must be emphasized that this description of this disease is inadequate. In my experience this type, even when well advanced, is the most difficult of all carcinomas of the stomach to detect and to differentiate from inflammatory changes. I have yet to see a case survive as long as five years after resection.

The unclassifiable advanced growths are, in the great majority of cases, demonstrated by x-ray methods with relative ease and need no further discussion here.

DISCUSSION

The symptoms described by patients are in general of little help in the detection of carcinoma of the stomach. However, frequent recurrence of indigestion or pain, in spite of an adequate regime, and persistent loss of weight, are of significance. Unfortunately, many carcinomas reach considerable size before they produce symptoms. My clinical colleagues tell me that in many cases carcinoma of the stomach is associated with symptoms suggestive of a psychosomatic disorder rather than organic disease of the stomach. The radiologist, therefore, must establish a routine to be carried out as if every examined stomach were suspected of harboring a carcinoma.

A number of writers have discussed the advisability of attempting a survey type of examination of the stomach analogous in purpose to the x-ray examination of the chest of symptom-free people being done by Public Health agencies to discover cases of tuberculosis in apparently healthy people. It is my impression that this interesting experiment is impractical for general application although gastric lesions will be discovered in a very small percentage of symptomless individuals in the so called cancer age. The problem of stomach cancer is different from that of pulmonary tuberculosis. The individual with tuberculosis is a potential danger to those with whom he comes in contact, while the cancer of the stomach is important only to the unfortunate individual who has it.

SUMMARY

The detection of carcinoma of the stomach by x-ray methods and to a certain extent by gastroscopy depends upon two basic physical factors: (1) the location of the growth in the stomach, and (2) the gross growth characteristics of the tumor, i.e., the physical manner in which the tumor involves the stomach wall. Stout's Classification is based on this second factor and is the foundation for an understanding of the clinical evolution of this disease and of the difficulties encountered in attempting to detect it.

SOME MODERN ASPECTS OF ESTROGEN THERAPY IN WOMEN

Edmund W. Overstreet, M.D.
University of California Medical Center
San Francisco, California

EVEN though various estrogen compounds, both natural and synthetic, have become very familiar to us over many years of use, they still remain fascinating and mysterious substances. They are strikingly powerful compounds. Like any powerful drug, they can be tremendously beneficial if properly used. By the same token, they can do great harm if improperly used. With the steady increase of knowledge regarding these hormones must of necessity go a continual change in our ideas about when they should be used therapeutically and how they should be used. Consequently, it is important to review rather frequently our current concepts about estrogen therapy in women.

In accomplishing such a review it is worthwhile to start with a list of the basic biologic actions of estrogens in women.

Basic Biologic Actions of Estrogen (Females)

A. Local estrogenic activity.
   1. Promotes growth and cornification of vaginal epithelium.
   2. Stimulates secretion of cervical glands.
   3. Stimulates growth of endometrium.
   4. Arrests endometrial bleeding - large doses.
   5. Produces endometrial bleeding - on withdrawal.
   6. Stimulates growth of myometrium.
   7. Alters uterine motility.
   8. Stimulates growth of mammary ducts.

B. Pituitary inhibition.
   1. Can suppress ovulation - large doses.
   2. Prevention of postpartum breast engorgement.
   3. Inhibits body growth.
   4. (Suppression of menopausal symptoms - mechanism uncertain).

C. Metabolic activity.
   1. Anabolic for bone - mineralization.
   2. Accelerates epiphyseal closure.
   3. Special effects on skin and mucous membranes.
      a. Atrophic rhinitis.
      b. Senile keratosis.
      c. Conjunctival changes.
   4. Na+ ion retention.
   5. Blood dilution.
   6. Produces anemia.
   7. Lowers body temperature.

D. Anti-androgenic effect.
   1. Inhibits acne.
   2. Anti-alcopecia (males).

E. Mechanism obscure.
   1. Inhibition of mammary carcinoma - in some cases.
   2. (Suppression of menopausal symptoms) — see B.
   3. Regression of endometriosis - large doses.

F. Doubtful effects.
   1. Prevention of pregnancy toxemia.
   2. Stimulation of corpus luteum - small doses.
   3. Regression of polycystic ovaries.

These biologic actions must be kept continually in mind if clinical usage of these compounds is to be truly skillful, and if the pitfalls of improper usage are to be avoided. The list of doubtful biologic effects should be especially noted. Their validity is most dubious at the present time. In the present state of our knowledge they cannot yet serve as a satisfactory basis for clinical usage.

The following table for useful estrogens will also be of value in accomplishing our review. (Table on page 133).

It may well be thought that surprisingly few products are listed. This is by design. There is on the market today an almost astronomical number of various estrogen preparations. Many of them claim special advantages which simply do not stand up under sharp scrutiny. Differences between most of the products are insignificant or non-existent. Indeed, a close approximation to the truth can be had by paraphrasing Gertrude Stein, "An estrogen is an estrogen is an estrogen."

It is advisable, therefore, to choose only a few estrogen products and to use them well. It is the only way in which one can become familiar with their effects and their side-effects at various dosage levels. Patients will derive much more benefit from this type of approach

Read before the Arizona Medical Association, April 1953, Tucson, Arizona.

USEFUL ESTROGENS

Type of Estrogen	Equivalent dose (approximately) *	Trade Products	Advantages	Disadvantages
Stilbene-hexane compounds	0.5 mgm.	Stilbestrol Hexestrol Dienestrol Benzestrol etc.	Low cost. Oral route. Synthetic-pure Large dose forms (Stilb. 25 mg.)	Side effects - nausea-occasional; epithelial pigmentation.
Natural estrogens-conjugated equine	0.625 mgm.	Premarin Conestron Menagen Na Estrone SO_4	Side effects-rare. Well-being(?) Oral route.	High cost. Impure. Odor.
Natural estrogen derivatives: - Ethinyl estradiol	0.02 mgm.	Estinyl Lynoral Eticylol	Moderate Cost Side effects - rare. Oral route. Synthetic-pure.	
Natural estrogens for injection: -	0.5 mgm.	Di-ovocylin Progynon-DP	Long effect. (12 d) Quick effect. (hypo)	High cost. Injection.

* To the nearest available commercial dose size.

than by the haphazard trying of this or that or the other estrogen preparation.

Perhaps the most recent important advance in the field of estrogen therapy has to do with our better knowledge of the safeguards which must be observed during its use. The most important of these is the cyclic administration of estrogens — as opposed to continuous administration. In the management of gynecologic problems with estrogens, daily dosage should be stopped for a period of from three to seven days out of each month. For the woman whose menses are still present, this rest period should as nearly as possible coincide with her regular menstrual periods. The reasons for this cyclic therapy are important. First, with continuous administration, patients will gradually develop a tolerance to estrogens, and increasingly high dosage will be required to obtain the same results. Second, estrogens have a tendency to produce anemia when given steadily. They also have some degree of toxic effect on liver and kidneys. Third, when given continuously in fairly large doses, estrogens can, of course, produce amenorrhea; and this may not be at all desirable. Fourth, more important than amenorrhea is the irregular bleeding which often results if estrogens are given without rest periods. This is perhaps the most worrisome complication of estrogen therapy that we see today. Moreover, it becomes a truly grave matter when, in the woman receiving estrogen therapy, the assumption is made that episodes of irregular bleeding are due to the hormone administration and they actually turn out to be due to cancer of the uterus. The fifth reason for cyclic therapy has to do with growth effect. With continuous dosage of estrogens this effect on the reproductive tract may be so great as to give undue growth of polyps, fibroids, and the like. This leads to undesirable secondary problems. Cyclic therapy also helps to avoid mastodynia. If estrogens are given unremittingly, breasts may become intolerably painful. The same build-up of effect can also occur with salt retention. This mechanism has a tendency to produce edema in all women to whom we give estrogens. And the process can become rather marked and even dangerous — in cardicas for example — if the estrogen is given without respite.

What has been said about cyclic estrogen administration should make understandable our attitude toward pellet implantation as a mode of administration. Absence of cyclic dosage, variability in absorption, uncontrollable side-

effects, the difficulty of stopping dosage, and the modern availability of satisfactory oral estrgoen preparations make it a most undesirable method. The same is true, to a lesser degree, of the hypodermatic administration of estrogens. It gives fluctuating blood levels of the hormone which not only lead to complications but also are less effective therapeutically. When estrogens are given by mouth one or more times daily, much smoother blood level curves are obtained which are much more satisfactory. It is also a much easier and much less expensive way for patients to take the medication. Nevertheless, situations do occur in which rapid, marked estrogen effect is desirable – for example, in the initial management of very severe menopausal symptoms or in the initial arrest of dysfunctional uterine bleeding. There is also the occasional woman for whom the needle obtains better results than does the pill – for reasons which are probably psychogenic.

Even before the start of any estrogen therapy there are two other safeguards which must be thought of. The first has to do with patency of the cervical canal. We see today entirely too many women in the post-menopausal group who develop serious degrees of hematometra or pyometra because estrogens were prescribed and the cervical canal happened to be atretic and closed. Whenever doubt exists about its status, it is a simple enough matter to pass a small uterine sound to make certain of cervical patency. It may well avoid unfortunate professional embarrassment. As a second safeguard, it is well to be on the alert for the post-menopausal woman who has previously had menstrual migraine. Giving estrogens may well bring it back in all its previous unpleasant glory.

During the course of long continued estrogen therapy certain simple precautions are in order. It is most important that such women be seen for periodic pelvic examinations. It is essential to check on the unexpected growth of small fibroids, effect on ovaries, the possible development of hematometra or pyometra, the growth and activation of unsuspected endometriosis, and – perhaps most important of all – the coincident development of cancer of the reproductive tract. For example, a woman whose menopausal symptoms are nicely controlled on a cyclic, oral dosage of estrogen should not be allowed to go more than three months at the most without such a check-up pelvic examination. The same is true of examination of the breasts. Not too infrequently a patient like the example above coincidentally develops breast cancer. Obviously then, the further giving of estrogens is utterly contraindicated. Unless we are continually on the lookout for such situations, it is easy to run into an occasional case that may produce the horribly guilty feeling of actually having stimulated the progress of breast or reproductive tract cancer by the irresponsible giving of estrogens.

More attention should be given by the literature to the actual contraindications to estrogen therapy. Certainly the history of any previous breast or genital cancer will rule it out entirely – except where high dosage treatment is to be used in specific management. Usually the presence of uterine fibroids will contraindicate estrogen therapy because of the danger of stimulating too rapid growth. The same is true, of course, of endometriosis. Small doses of estrogens – as in management of the menopause, for example – will definitely aggravate minor degrees of endometriosis. The specific management of endometriosis with large estrogen dosage is still in such an experimental stage that it cannot yet become a part of our routine clinical usage.

Other contraindications to estrogen therapy arise out of the hormone's undesirable, unpleasant side-effects. Nausea, irregular bleeding, edema, and mastodynia may totally contraindicate its use, and it may be necessary to turn to the androgens to accomplish our purposes. A previous history of mastodynia will indicate the utmost caution in starting estrogen therapy, and may contraindicate it entirely.

In a sense, today, the most important contraindication to the use of estrogens is incorrect diagnosis of the menopause. Probably the most important single use of estrogen therapy in women is for the management of menopausal symptoms. But it is in this field that abuse of this powerful therapeutic agents tends to occur most easily. Most of us at one time or another have been tempted to give estrogens to women in their thirties just because they are nervous – or they are depressed – or they are tired – or their libido is declining. Such symptoms can and do occur as part of the menopausal syndrome. But is the menopause their usual cause? A moment's reflection will indicate the contrary–or else we are seeing today a lot of menopausal men.

It is well to bear in mind that the average age for the menopause in this country is forty-seven. Yet we see many women today who, at the age of thirty-three or thirty-five or so, because they are a little tired or nervous, clamour for estrogens – and occasionally get them. When such a woman obtains benefit from estrogen therapy it is simply as a placebo, serving as a substitution psychotherapy; almost any kind of brightly colored, coated pills would do as well – as we easily discover if we try them. Diagnosis of the menopause should be made very rarely and with the utmost care under the age of forty. It does occur, but usually for good pathologic reasons which are ordinarily discernible. Simple physiologic menopause occurring below the age of forty is always a suspect diagnosis – except, of course, for surgical or radiation menopause, an entirely different matter.

In order to make a diagnosis of menopausal changes some alteration of the menses must be present. There must be a definite, specific history of hot flashes, described well and accurately by the patient, without leading questions. So many women these days have read so much popular literature about the menopause that as soon as they get a little bit warm, under any circumstances, and especially over the age of forty, they assume that they are having hot flashes. The nature of typical menopausal vasomotor symptomatology is perfectly familiar, and it is quite specific. Such a description should be required of a patient before leaning toward a diagnosis of the menopause.

In a few cases extreme melancholia in association with menstrual changes may be considered menopausal symptomatology. And in some women menopausal symptomatology will occur primarily in the vaginal area as a result of the mucous membrane changes due to estrogen deprivation. These are ordinarily easily diagnosed either by inspection or by vaginal smears.

It is the general concensus today among expert gynecologists that of all menopausal women only about thirty per cent will seek medical aid for the relief of true symptomatology. And it is generally agreed that only about one-half of these will need any actual hormonal therapy. The other half can easily be managed by reassurance about the nature of the menopause with perhaps the temporary addition of mild sedation. So only about fifteen per cent of all women who will actually have menopausal symptoms severe enough to warrant the use of endocrine therapy.

When it is used what will our objectives be? Primarily, of course, we aim at controlling the distressing hot flash symptomatology and the concomitant symptoms of nervousness, tension, and occasionally depression. But beyond this what? Are we attempting to keep women eternally young by means of hormone administration? Of course not. In the first place it cannot be accomplished. In the second place, the long continued administration of estrogens has definite drawbacks in terms of side-effects. In addition, it is still not entirely certain just what actually occurs when a woman's normal involutional pattern is upset to such a degree. Lastly, there is always the lurking suspicion – although no actual proof is adduceable – that carcinogenesis may enter the picture somewhere.

In any event, the prime objective of hormonal management of menopausal symptoms is simply to slow down the menopausal changes, not to attempt to stop them. It appears that severe symptoms tend to occur when the physiologic hormonal changes take place too abruptly in the body. So our objective is simply to make the menopausal alterations more gentle and tolerable ones. From this point of view, one will always strive for the smallest dosage of estrogen consistent with relief symptomatology. It should always be given in cyclic fashion. Consistent attempts should be made to taper down the dosage level and to cease it entirely as soon as possible. Sooner or later the patient must adjust to her menopausal changes. Once they really start, the sooner the better.

The major portion of this paper's discussion has been devoted to management of the menopause because it is by far the most important modern aspect of estrogen therapy in women. But a few special comments about some of the other clinical conditions in which estrogens are of value my be worthwhile. These conditions are outlined below.

Clinical Applications

A. Diagnostic.

1. Amenorrhea. Withdrawal bleeding = functional endometrium.
   Dose: 0.05 - 0.1 mgm. Estinyl x 21 days
2. Dysmenorrhea. Ovulation suppression→ relief = functional.
   Dose: 2-5 mgm. Stilbestrol x 21 days. Premarin, 3.75 mg. per day – no nausea, more expensive.

3. Pregnancy test. 5-25 mg. Stilbestrol; no nausea = presumptive pregnancy.

B. Therapeutic - definitely useful.
   1. Menopause.
      a. Natural. 0.1 - 0.1 mgm. Stilbestrol cyclically: if menstruating, rest period during menses.
         (1) Least dose consistent with relief.
         (2) Taper down dosage as rapidly as rapidly as possible (except with osteoporosis).
      b. Surgical or radiation. Long substitution Rx.
   2. Senile vaginitis. Local Stilbestrol suppositories, 0.1 - 0.5 mgm. nightly x 14 days.
   3. Suppression of lactation. (Engorgement) Stilbestrol, 15 mgm. daily, tapering to 1.0 mgm. daily over 2-3 weeks.
   4. Post-menopausal osteoporosis.
   5. (Organic hypogonadal states).
   6. (To prevent osteoporosis with high dosage ACTH and Cortisone).

C. Therapeutic - possibly useful.
   1. Dysmenorrhea. Dose as above. Suppress only 2-3 cycles. Not a permanent Rx.
   2. Amenorrhea. Dose as above. 3-4 artificial cycles. Estrogens best in combination with progesterone last 5 days of artificial cycle.
   3. Dysfunctional bleeding. (Accurate diagnosis essential!)
      a. Immediate arrest. Large doses.
      b. Permanent correction. Various schedules. Best with progesterone for "medical curettage."
   4. Infertility. To stimuate cervical mucus secretions. Small doses pre-ovulatory. For mild chronic endocervicitis + Penicillin.
   5. Post-menopausal bladder-trigone syndrome. Dose: as for senile vaginitis.
      a. Androgens may be preferable.

D. Therapeutic - doubtful value.
   1. Genital hypoplasia (infertility). Large doses, prolonged.
   2. Missed abortion. Large doses x 7 d., withdrawal.
   3. Menstrual migraine. Small-doses, premenstrual.

E. Experimental only.
   1. Habitual abortion.
   2. Prevention of toxemia.
   3. Rx of endometriosis (large doses).

F. Probably valuless (abuses).
   1. Mastalgia.
   2. Premenstrual tension.
   3. Frigidity.
   4. Induction of labor, uterine inertia.
   5. Homosexuality.
   6. Missed abortion.
   7. Threatened abortion.

Estrogens can, on accasion, be useful as a diagnostic tool. In amenorrhea their temporary administration followed by withdrawal bleeding gives good evidence of a functioning endometrium. Attention can then be turned elsewhere in seeking the etiology of the amenorrhea.

In dysmenorrhea estrogens can aid in the study of its nature. They can be used very satisfactorily to suppress ovulation. Such an anovulatory cycle should result in a relatively painless menstrual period for the women whose dysmenorrhea is on a truly functional basis. If the menstrual period which follows definite suppression of ovulation is about as painful as usual, it can be strongly suspected that some organic basis has been overlooked or that the dysmenorrhea is purely psychogenic in origin. As a matter of fact, in at least 80% of dysmenorrheic women the psychogenic etiologic factor is large. And suppression of ovulation by means of estrogens to give two or three relatively painless menses can serve as a good method of temporary psychotherapy. It shows the patient that she need not necessarily have severe pain with periods, thus breaking, at least to some degree, the psychogenic pattern of her dysmenorrhea. Obviously, suppression of ovulation is only a temporary expedient in the management of dysmenorrhea; it should not be used as a long-term method of treatment.

Senile, atrophic vaginitis is one of the conditions in women which responds best to estrogen medication. The use of simple, water soluble suppositories containing estrogens can effect miraculous cures of what is sometimes very annonying symptomatology. Suppression of lactation following childbirth by means of estrogens is a thoroughly familiar therapeutic method. One warning about it is worthy of mention. It is essential to taper off the estrogen dosage over a period of two to three weeks following delivery in order to avoid the occurrence of secondary lactation and late puerperal bleeding. The problem of post-meno-

pausal osteoporosis is only now gaining the attention that its importance deserves. Here the prime indication is for estrogens, and they often miraculously cure rather severe symptomatology.

The problem of dysfunctional uterine bleeding is an entire subject in itself, and no brief discussion of it is at all satisfactory. It would appear, however, that we are turning more and more to the use of androgens in the management of this sort of uterine bleeding.

The list of therapeutic uses of estrogens that are doubtful, experimental only, or definitely valuless need not occasion discussion here. Passing mention should be made, however, of the increasingly widespread feeling that estrogens are of no value in the management of missed abortion and of threatened abortion, or in the prevention of toxemia. These formerly hopeful areas simply have not proved out on further testing.

It is clear that estrogens are indispensable therapeutic agents for women. But they can be dangerous and do great harm. It is essential that we employ them with the respect, the understanding, and the skill that their powers demand.

PHOENIX *Clinical* CLUB

The Case History in this discussion is selected from the Case Records of the Massachusetts General Hospital, and reprinted from the New England Journal of Medicine. The discussant under Differential Diagnosis is a member of the staff of the Massachusetts General Hospital. The other discussants are members of the Phoenix Clinical Club.

MASSACHUSETTS GENERAL HOSPITAL CASE NO. 35151

A SEVENTY-YEAR-OLD farmer was admitted to the hospital because of a very productive cough.

For several years he had a chronic cough, most severe in the morning, when he raised moderate amounts of whitish sputum. He was in otherwise good health for his age. Five months before admission the cough increased in frequency and productivity, so that at the time of admission he was raising about half a cupful of yellowish and occasionally blood-stained sputum each day. Progressive lack of appetite, weight loss and weakness appeared. A physician performed an x-ray examination eight days before entry. Penicillin therapy was given. The patient was told that he had a lung abscess that was increasing in size despite chemotherapy and he was transferred here.

On admission he appeared weak and emaciated but in no acute distress. The tongue was red and smooth; he was edentulous, with an upper plate. The trachea was in the midline, and there were dullness to percussion and decreased breath sounds in the region of the right fourth rib posteriorly. There was no change in tactile fremitus. The heart was within normal limits. A small, indirect hernia was present in the right inguinal region. The prostrate was twice the normal size but not hard. The blood pressure was 150 systolic, 90 diastolic.

The urine had a specific gravity of 1.026 and gave a + test for albumin. The white-cell count was 16,800, with 77 per cent neutrophils, 8 per cent lymphocytes, 8 per cent monocytes and 7 per cent eosinophils. The serum total protein was 6.06 gm. per 100 cc., chloride 105 millequiv. per liter, and nonprotein nitrogen 24 mg. per 100 cc. The prothrombin time was 23 seconds (control, 16 seconds).

An electrocardiogram on the fifth hospital day showed a normal rhythm at a rate of 75, with the PR interval equal to 0.15 second and normal axis. The T waves were low upright in Leads 1, 2 and 3, with upright TV_2, V_4 and V_6 and flat TAVL and low upright TAVF.

X-ray examination of the chest showed an increased anteroposterior diameter. Both leaves of the diaphragm were low, and fluoroscipically were seen to be limited in their excursion. The lung fields were bright. In the apex of the right lower lobe lying posteriorly in contact with the chest wall was a rounded shadow, 7 cm. in diameter, in which there was a fluid level. The shadow was slightly lobulated in contour, and the upper portion of the wall of the cavity was seen to be irregular along its inner wall. There was little or no reaction in the surrounding lung. The sputum was negative for acid-

fast organisms, and cytologic examination for tumor cells was reported as "doubtful". Bronchoscopy demonstrated no abnormalities except that the dorsal division of the lower lobe was somewhat reddened, and a thin, whitish, mucoid secretion exuded from it. There was no fixation or deformity here or elsewhere. On the ninth hospital day a right lower lobectomy was performed. Toward the end of the operation the blood pressure fell to 90 to 100 systolic, 50 diastolic. At the end of the operation the blood pressure was up, and the condition was good. A blood transfusion of 2000 cc. was given.

Twelve hours later the patient's general condition seemed good, although there was a hypotension (blood pressure of 80 systolic, 40 diastolic), without rise in pulse. Fourteen hours after operation the blood pressure dropped to 60 systolic, 40 diastolic, and a marked bradycardia (rate of 44) appeared. An electrocardiogram showed an irregular auricular and ventricular rhythm, with auriculoventricular dissociation and prolonged QRS time. Many artifacts obscured the tracing, but the T wave in Lead 1 appeared upright, with a low upright T wave in Lead 2, inverted T wave in Lead 3, and depressed ST segments in Leads CF_2 and CF_4, with probably upright T waves in leads CF_2 and CF_4. He died thirty-six hours after the operation.

DR. HENRY L. FRANKLIN:

Upon first reading this protocol I thought it a simple problem, but the more I have looked at it, the more doubt has arisen. I'm wondering if our good and honest judges aren't playing some tricks.

We are told that an abscess in the right lung was duly and properly diagnosed and removed by surgery. About this, I suppose there is no controversy. I do not suppose we are expected to go into a differential diagnosis regarding it. I would say, however, that according to statistics, which I will not go too far into because one of our judges does not think too much of them, a very, very large percentage of lung abscesses are due to cancer. There was loss of weight, which might not mean too much in an old man who had a cough for a long time. The blood in the discharges is common on all abscesses and does not mean much. There was no history of tuberculosis and nothing found in the sputum to suspect tuberculosis. An abscess appearing without some previously recognized lung pathology is, to say the least, a little strange unless we consider bronchiectasis as being its Genesis. I think we can at least make a guess that the weight of evidence favors cancer as being the cause.

The lower right lung lobe was removed and the patient left surgery with a very low blood pressure. However, after a transfusion he rallied and seemed to be doing well. Fourteen hours after operation, the blood pressure dropped to 80 over 40 and a bradycardia with a pulse rate of 44 developed. This seems evidence of heart failure. We are not given any more information concerning the patient's behavior after this except that he died thirty-six hours after operation. I am assuming that there was no active heart lesion prior to surgery except perhaps sclerosis of the coronary artery. Acute heart failure in a man of 70 following a severe lung operation would not be unexpected. An operation in the chest in close proximity to the heart might easily result in some trauma or damage to the vessels of the heart wall, or result directly in some coronary insufficiency and the EKG seems to indicate a coronary insufficiency with a probable ischemia of the myocardium with perhaps a later infarction before death.

I shall not go further into the many circulatory lesions that may have been present and strive for a simple and logical answer and say that he probably died of heart failure caused by

1. Coronary insufficiency and myocardial infarction.

Other Diagnoses

2. Right lung abscess, probably cancer.
3. Emphysema.

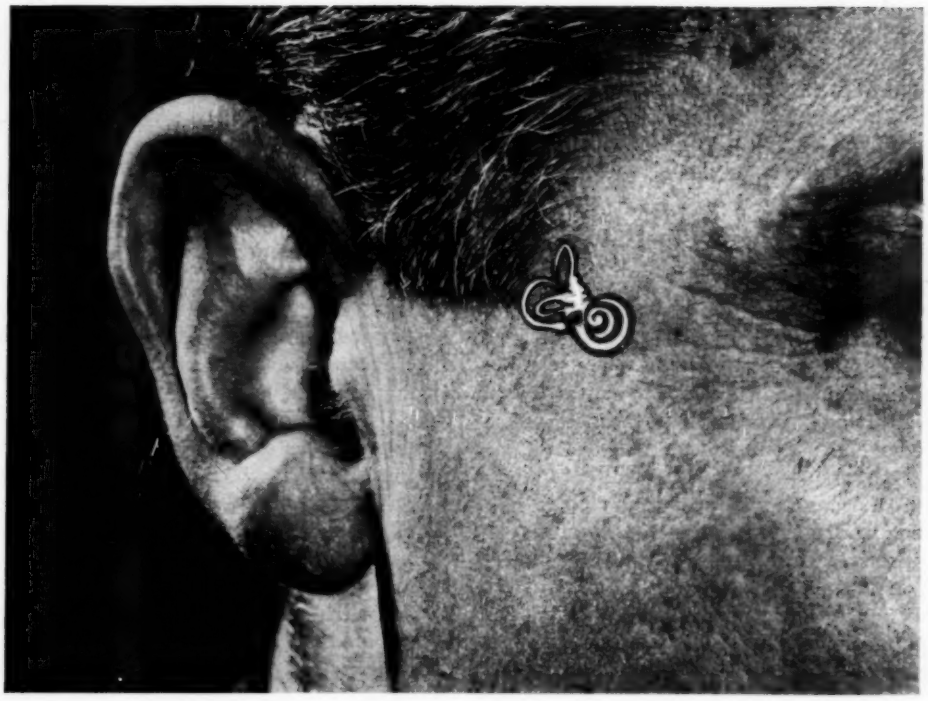
DIFFERENTIAL DIAGNOSIS

DR. LOWREY F. DAVENPORT:

This is the recurrent problem of differential diagnosis between infection and tumor. Did this man have a simple lung abscess? Did he have an abscess that developed secondarily to bronchial obstruction, or was this a primary tumor in the lung with beginning central necrosis to account for the symptoms? I should like to see the x-ray films.

DR. STANLEY M. WYMAN:

The posteroanterior and lateral views show this well rounded, quite discrete shadow of increased density far posteriorly in the right chest and somewhat medially, and it seems to be close to the chest wall. There is a clearly de-



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fined fluid level within this round shadow. The wall of the shadow itself is thickened, and its inner contour is shaggy and irregular as the record states. This is a Bucky film taken for rib detail and shows the ribs and the spine in this area to appear within normal limits. The heart shadow is a little prominent in the region of the left ventricle, and the aorta is quite tortuous. The chest generally is emphysematous.

DR. DAVENPORT:

We have to explain, then, a localized lung lesion in the dorsal portion of the right lower lobe. The differential diagnosis here is between infection and tumor. I believe, in a man of this age with this large an abscess cavity, who had a sputum negative for tubercle bacilli, that we can with reasonable certainty rule out the consideration of tuberculosis. The differential diagnosis lies between a simple lung abscess and an abscess that developed in a necrotic tumor mass. The localization of the abscess in the dorsal portion of the lower lobe is not uncommon for a simple lung abscess. However, we have nothing in the background of this patient to explain the appearance of lung abscess. Presumably his teeth had been removed many years previously, and there is nothing in the history as given to suggest any possible etiologic agent for a lung abscess. Lung abscesses as discrete as this usually show surrounding pneumonitis unless there has been intensive chemotherapy. Rarely in a lung abcess do we see such a sharply demarcated lesion as presented here. Most tumors arising in the bronchial tree in the periphery of the lung of a solitary nature, and of this size, are adenoarcinomas. In such a situation these tumors frequently outgrow their blood supply and show a central necrosis. A Papanicolaou stain on the material taken from the patient's sputum showed a doubtfully positive test. I assume that the material from this tumor was so necrotic that even though he was raising tumor cells, it might be difficult to recognize them under the microscope. The remaining findings at bronchoscopy are of no significance in a tumor situated as far posteriorly as this tumor was. We are given the symptom of chronic cough for several years. Apparently, this was the type of morning cough that a man who has spent seventy years of his life in New England is reasonably entitled to. The cough that became alarming and troublesome had been present for only five months. Cough of five months' duration is not unusual with a tumor such as this is, with a central necrosis. I would think, then, that the lung picture was that of a bronchiogenic tumor, probably an adenocarcinoma, undergoing central necrosis.

I think that secondarily it would be of some interest to try to puzzle out why he died within thirty-six hours of operation. When a patient dies within thirty-six hours of a major operation such as a lobectomy we should like to know, first whether or not a suture had slipped following cough as he began to rouse from the anesthesia. However, with the drop in blood pressure the pulse did not become elevated. The bradycardia excludes the possibility of blood loss as explanation for the low blood pressure and symptoms twelve hours after operation. Over and over again we get confused between the differential diagnosis of pulmonary embolism and coronary occlusion. Pulmonary embolism may give a definite pattern of symptomatology. In a certain percentage of cases there are suggestive changes in the electrocardiogram, but the tracings suggest coronary occlusion. The secondary shock in a man of seventy who has arteriosclerosis of the coronary arteries may cause acute coronary occlusion. Whatever the trigger mechanism that precipitated the cardiac episode, a man who develops a sharp drop in blood pressure without evidence of blood loss, a cardiac rate of 42 and complete dissociation by electrocardiogram of auricular and ventricular rhythm must have a profound disturbance of cardiac conduction mechanism, presumably on the basis of coronary occlusion.

DR. DONALD S. KING:

Can you distinguish between abscess and tumor by the thickness of the wall and the shagginess of the wall?

DR. WYMAN: No, not in all cases. I think, as Dr. Davenport pointed out, that the thickness and contour of this wall together with the absence of the reaction about it, definitely favor tumor over an inflammatory process such as abscess. The two overlap, however, in certain cases and make it impossible to be certain.

DR. ALFRED KRANES:

Knowing the tendency of these tumors to metastasize to the adrenal glands, could you consider acute adrenal insufficiency as a pos-

sible mechanism for the hypotension following operation and the events that followed it?

DR. DAVENPORT:

I do not think I would consider it as a probability. I might consider some such mechanism in the development of the low blood pressure, in the absence of anything else to explain it. We have no evidence of adrenal disorder prior to operation, and it seems hardly likely that he developed such a condition within thirty-six hours of operation.

DR. KRANES:

Except that this degree of surgery might be enough to throw a person into acute adrenal insufficiency. He had no previous sign of it, and I do not think that one can make the diagnosis. It is just speculation.

DR. EDWARD B. BENEDICT:

I think it is worth pointing out why we did a bronchoscopy on a tumor that was obviously quite peripheral and beyond the reach of the bronchoscope. We did it because sometimes we can find tumor cells in the bronchoscopic washings when we have negative cytologic findings in the sputum.

DR. BENJAMIN CASTLEMAN:

In this case a cytologic examination of the washings showed definite tumor cells. Then Dr. Soutter took over.

DR. LAMAR SOUTTER:

There is one interesting point about the lack of surrounding pneumonitis. This patient had been on large doses of penicillin for a month prior to entry so that one could expect less pneumonitis than it usually found with an abscess. It might be questioned why anyone would do lung surgery on a patient of seventy who had emphysema. If he had a benign abscess it could have been drained, which would have been a simpler procedure than a lobectomy. But because we believed that he had a malignant lesion and was going steadily down hill, we thought it reasonable to do a lobectomy on this man to rid him of his sepsis. This procedure for a peripheral tumor has a reasonable chance of effecting a cure and is much safer than a pneumonectomy in older patients. We believed that he would withstand such a procedure but not a pneumonectomy. He was seen by a cardiologist, who thought that the heart was all right. The operation was long, and the dissection was difficult because of the inflammatory changes around the hilus of the lung. Toward the end he had a sudden fall of blood pressure accompanied by bradycardia. We discussed with the anesthetist as that time the possibility of adrenal insufficiency, which Dr. Kranes mentioned. We gave him neosynephrine, to which he had a favorable response. Postoperatively, when he again had a fall of blood pressure with bradycardia we thought of hemorrhage. But he had only a moderate amount of bloody fluid coming from his chest drainage tube. We gave him another transfusion, which did not affect his blood pressure. His bradycardia persisted. The cardiologist suggested that it was probably on the basis of myocardial failure. That is why an electrocardiogram was taken.

DR. RICHARD CLARK:

There were two tracings done before the final episode. These are of value, primarily as showing nothing of great significance and as serving as a base line. This is the one taken after the operation, and it does show more than is described in the protocol. There is a distinct depression of the ST segment in Lead 1 of approximately 1 mm., a distinct elevation of the ST segment in Lead 2 of approximately 2 mm. and distinct elevation of the ST segment take off in Lead 3, whereas in Leads CF_2 and CF_4 there is significant depression of the ST segments. The T waves themselves are somewhat obscured by the superimposed P Waves going with the auriculoventricular dissociation. I think this tracing is entirely consistent with an acute posterior myocardial infarction, which also involves the conduction system.

CLINICAL DIAGNOSIS

Carcinoma of lung right
Right lower lobectomy, recent.
Coronary thrombosis
Myocardial infarction, recent.

DR. DAVENPORT'S DIAGNOSIS

Bronchiogenic carcinoma.
Acute coronary occlusion.

ANATOMICAL DIAGNOSIS

(Squamous-cell carcinoma of lung.)
Operation: lobectomy.
Acute coronary thrombosis.
Myocardial infarct, recent.
Tuberculosis, old, bronchial lymph nodes.

PATHOLOGICAL DISCUSSION

Dr. Castleman: Dr. Soutter removed the lower lobe with a portion of two ribs to which the tumor was adherent. In the center of the lesion was a necrotic cavity surrounded by irregular and nodular, granular tumor. Microscopically

it was a squamous-cell carcinoma, Grade III. The regional lymph nodes showed no metastases, but there was old tuberculosis. The final affair, both as Dr. Clark and Dr. Davenport predicted, was an acute thrombosis of the right coronary artery. This vessel supplies the interventricular septum and posterior wall, which was infarcted. Microscopical examination of the infarct showed an extensive infiltration with leukocytes, such as one sees in an infarct about two days old. It would be interesting to decide whether this infarction could possibly have occurred before the operation or just before or even during the induction of anesthesia. I do not see how we can settle from the section of the myocardium whether it was thirty-six or forty-eight hours old. Certainly, it was within that range. The polymorphonuclear leukocytes were still well defined and had not begun to degenerate very much. The myocardial fibers themselves were granular and had lost their striations. We found no metastases anywhere in the body.

THE *President's* PAGE

ANNUAL MEETIN' TIME

San Marcos Hotel , **Chandler**

April 25th through 28th, 1954

Technical Exhibits **Scientific Sessions**

Annual Golf Tournament

Blue Shield Corporate Meeting
Council Meeting
House of Delegates Meetings
Specialty Societies Luncheon — Dinner Meeting
Woman's Auxiliary Meetings

Guest Orators:

Wallace H. Cole, M. D., Professor Orthopaedic Surgery, University of Minnesota
Gerald L. Crenshaw, M. D., Consultant in Thoracic Surgery, California
Francis S. Greenspan, M. D., Assistant Clinical Professor of Medicine, Stanford University
Francis T. Hodges, M. D., President, California Physicians' Service
Paul H. Lorhan, M. D., Professor of Anesthesiology, University of Kansas
Lester W. Paul, M. D., Professor of Radiology, University of Wisconsin
Robert S. Pollack, M. D., Professor in Surgery, Stanford University
John M. Sheldon, M. D., Professor of Medicine, University of Michigan
John L. Sims, M. D., Professor of Medicine, University of Wisconsin
Bernard M. Stone, M. D., Professor in Radiology, Stanford University
Harold G. Trimble, M. D., Associate Clinical Professor of Medicine, Stanford University
William P. Young, M. D., Assistant Professor of Surgery, University of Wisconsin

PRESIDENT'S DINNER DANCE **April 28, 1954**

PLAN NOW TO ATTEND WITH YOUR WIFE

(Make Room Reservations direct with San Marcos Hotel)

RELAX UNDER THE SUN WITH SWIMMING AND GOLF AVAILABLE

Editorial

ARIZONA MEDICINE
Journal of
ARIZONA MEDICAL ASSOCIATION, INC.

VOL. 11 APRIL, 1954 NO. 4

CONTRIBUTORS

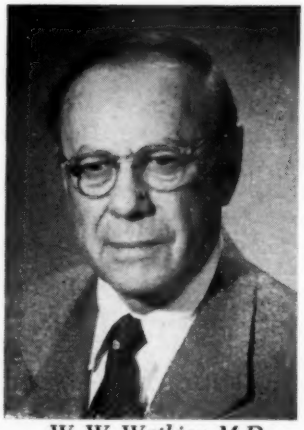
The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. (See MEDICAL WRITING by Morris Fishbein.)
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Submit manuscript typewritten and double-spaced.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.

The Editor is always ready, willing, and happy to help in any way possible.

PARDON US IF WE'RE PROUD



W. W. Watkins, M.D.

Surely no one can blame us if we point with pride when one of our pioneer physicians of the state and an associate editor receives special and well-deserved recognition. In the January 1954 issue of the Arizona Public Health News and reprinted in the February issue of the Arizona Health Digest is a very informative article about our associate editor, Dr. W. W. Watkins. Dr. Watkins came to this state in 1906 and has been very active in the medical affairs of the state since.

We quote from the article:

"His interest in Arizona's tuberculosis problem led him to take on the post of resident physician for St. Luke's Home, as the institution was called in its earlier days. Here at St. Luke's he began testing pathological material from tuberculous patients, introducing laboratory services to Arizona.

"So to Dr. W. Warner Watkins properly belongs the distinction of being founder of laboratory services in Arizona. Shortly after the laboratory was put into operation in 1911, Dr. Watkins volunteered to run Wassermann tests (for detection of syphilis) on all patients at the territorial insane asylum. The officials accepted his offer after dubious consideration, for nothing of this sort had ever been attempted. Test results showed that 60% of the mentally ill patients were positive to Wassermann tests and thus victims of venereal disease. 'That impressed them (the hospital authorities) so much,' Dr. Watkins commended dryly, 'that they decided to keep on with the work.' And at the request of the late Governor George W. P. Hunt, laboratory tests were also given to inmates of the prison at Florence.

"For several years the Pathological Laboratory operated by Dr. Watkins did all of the pathology work in the state, both for physicians and institutions. Dr. Watkins recalls his laboratory's role in controlling one major epidemic — the Malta Fever that struck Phoenix in 1922. This epidemic, which was traced to a herd of infected milk goats brought into the city, gained nationwide attention because it was the first outbreak of Malta Fever in a city in the Continental United States. Dr. Watkins worked closely with the Public Health Service, performing tests for Malta Fever, on every Wassermann specimen that entered his laboratory. These tests brought to light many more cases of the

disease than could have been discovered otherwise. Dr. Watkins' report on the Phoenix epidemic was presented at the American Medical Association conference in Washington, D. C., on May 18, 1927, and was published the following November in the AMA Journal.

"Dr. Watkins is the author of many professional papers, more than 80 of which have been published in leading national and state medical publications. He has held offices in medical and scientific organizations and on special committees. In 1942, he served as chairman of the Committee on Silicosis, and out of this committee's investigations came the state's industrial disease law. As a result, industrial compensation is now given to victims of silicosis just as it is for accidents incurred on the job.

"Dr. Watkins is a past president of the Maricopa County and Arizona State Medical Associations. He is also a former president of the Medical and Surgical Association of the Southwest and of the Pacific Coast Roentgen Ray Society. He is a charter member of the American College of Radiology and holds honorary life membership in the Southwestern Medical Association. He is also a member of the Radiological Society of North America and the American Roentgen Ray Society.

"He served as editor of Arizona Health News during the time that Dr. E. S. Godfrey was public health superintendent (1908-1912). He also was editor of the Arizona Medical Journal when it was started in 1913. From 1922 to 1935 he was editor of Southwestern Medicine."

I'm sure our readers join us in congratulating Dr. Watkins on this recognition and extending our thanks for the many things he has done for the health of the people of the state.

SOMETHING NEW IN TAPE

THE problem of keeping up with the new advances in medicine is a real one for every conscientious physician. In his attempt to do so he invests great sums of money in medical magazines only to find all too often that he gets more of these than he can possibly read. He buys books with the best intentions of reading them and later finds himself rationalizing his purchase by pointing out their value to his library "for reference". Even the handsome informative brochures sent him by his friends the drug and medical instrument manufacturers receive his attention. Some of them he gets read; others have a way of accumulating at his bedside or on his desk waiting until he gets time to go over them. He is sometimes embarassed when one of his patients asks him about some new treatment reported in some popular news magazine. It matters not that the publication may have been premature and the treatment not yet available or sufficiently tested for general use; in the eyes of his patient he is behind the times. So he subscribes to the news magazine.

Naturally then the physician welcomes any device which offers him any way out of this morass, and several devices are available. The various abstract services fill a definite need. Year books are published to collect in one easily read volume the important medical developments of the year. Moving pictures of latest operative technics and treatment methods are available. Perhaps one of the most successful and practical methods of dissemination of such information is through the post graduate courses offered by teaching centers and the various professional groups. All of these things have their advantages and disadvantages — the perfect method has not yet been found.

It is encouraging therefore to see the institution of a new idea along this line which seems to offer certain obvious advantages. The American Medical Education Foundation has endorsed an "Audio-Digest" service which is offered by a non-profit subsidiary of one of our sister state medical associations. Abstracts of twenty to thirty current scientific articles are made into one-hour tape recordings and sent out monthly to subscribers. These at present are available as general practice, digests as well as digests of several specialties. Lectures either with or without illustrations on film strips are also available. Since ownership of tape recorders is expanding rapidly, this seems to us an interesting idea. Imagine being able to listen to a recent, up-to-date lecture by Professor Doc at your convenience, as for example while driving in your car making calls, or reclining in your favorite heart-resting easy-chair at home. After you've thoroughly digested the material the tape may be erased and used for recording the childrens' voices, a symphony from the radio, or your own voice for transcription by your secretary.

One of the best things about this service and the one which really inspired this writing is that any profit which accrues will be devoted to the cause of medical education through the National Education Foundation. The surprising thing is that it costs no more than blank tape as you buy it for your recorder.

TOPICS OF *Current Medical* INTEREST

RX., DX., AND DRS.

By GUILLERMO OSLER, M.D.

WHAT is the NEW POLIO VACCINE? The simplest description for your office, club, and social questioners (in case they don't tell you first) is as follows,—It is a combination of three types of polio virus, inactivated by formalin, so that it can no longer infect but can still produce antibodies. . . . Three 'shots' are to be used, the first at an interval of two weeks, the second 'several' weeks later. . . . The gamma globulin was a good idea (1952-53), but is now abandoned. . . . The new vaccine is said to be safe.

A brand new word which promises to have a more common use is 'SCINTIGRAM'. 'Scintography' involves the use of a 'scintiscanner', a gamma ray detecting device which plots the concentration of radioactive tracer agents in such tissues as the liver and the gall-bladder.

Here are two more new terms, dependent on new substances and methods,—'TELETHERAPY' and 'BRACHYTHERAPY'. The cue to what they mean could come from a recent program note which said that the speaker on those subjects was from the Oak Ridge Institute of Nuclear Research.

Increased incidence of sensitization to PENICILLIN is naturally followed by attempts to decrease it. . . . Alexander of Dallas says that DESENSITIZATION may easily be done. He mentions the need to help nurses who are sensitive, the necessity to prepare patients who have a chronic infection, and a prophylactic preparation of those who may need the drug at a later date. . . . The ease and speed of the procedure depend on the degree of sensitivity. If severe, an initial dose of 2 units of aqueous penicillin may be enough; in others 50 units may be used. The dose is repeated every 3 hours, doubling on the second day, doubling again on the third, and so on up to 200,000 units without reaction. . . . If a delayed action penicillin is used, 30,000 units (0.1cc) can be given as the first daily dose, with an increase of 0.1cc per day up to 1.cc, and 0.2 per day after that to a total of 2cc.

The USPHS reported the value of combined isoniazid and PAS for tuberculosis, and it seemed very good news in December 1953. . . . Here now, begorrah, we find that in November a report was in the 'IRISH JOURNAL OF MEDICAL SCIENCE' of a similar finding by Breathnach. The Ould Sod may not be quoted well enough, so we'll surely keep a quicker eye on the state of things in Dublin and Gloccamorra.

We have always felt that one of the chief AIDS TO ASTHMATICS which Arizona provides is the partial reduction of several allergens. Almost always there is less housedust, less pollen, less infection, less molds than there is in the northeast. . . . Now a good name for this comes along, "THE ALLERGIC LOAD". Anderson and Rubin write about it in the Archives of Otolaryngology. . . . The sum total of the contributory and exciting factors makes up the allergic load. The patient must be considered as a whole. . . . Certain conditions increase the load, including smoking, anemia, sex hormone effects (menses, etc.), and psychosomatic influences. . . . Good term.

A new method rarely has such favorable reports as the socalled 'ANTIBIOTIC BONE BANK' in the U. S. Air Force. Favorable and perfect. . . . Bone is preserved in a refrigerated saline solution containing penicillin and streptomycin. . . . "One hundred grafts have been done. There have been no infections. All bone preserved by this method and used as a graft has integrated". . . . Terrific, without even a concession to luck or accident.

Another BONE AND JOINT procedure, feared and uncommon even a dozen years ago, is 'needling' of a joint. . . . To show the progress in the safety of aspiration (plus the instillation of hydrocortisone) the huge series of Hollander at the Univ. of Penn. can be quoted,—852 patients with a variety of rheumatic diseases had 8,693 intrasynovical aspirations and instillations. . . . A dividend is the effect of the cortisone, with an average of 83% being called successful. The knee does best; the hip and the subdeltoid bursa do most poorly.

A large series of PULMONARY "COIN" LESIONS (362) has come to surgery at the hands of Storey, Grant, and Rothmann. About one-third were shown to be malignant. . . . This is strong evidence in favor of thoracotomy and resection. It is also certain that delay is not justifiable. . . . The hazards of thoracic surgery are now so small that only expense is a factor. . . . (This would be a place to put in a plug for voluntary health insurance, in spite of our distress at the exclusion of certain illnesses).

A relatively new (and good) technic for ANAESTHESIA of the respiratory passages before BRON-

NOT FOR PROFIT

THE HOSPITAL BENEFIT Bulletin

Special Published Bi-Monthly by the Hospital Benefit Association, First Street at Willetta, Phoenix April, 1954

Excellent Article On Health Plans in "Medical Economics"

If you still have your February, 1954, copy of "Medical Economics", don't fail to read the article beginning on Page 199 entitled, "The Challenge of Voluntary Health Insurance". The writer is Ralph J. Walker.

Of basic interest is the explanation of different types of plans: the "one-doctor" plan with a fluctuating pre-payment fee; the group of physicians whose plan is administered by a paid manager (which often stems from a "one-doctor" plan); the type of plan, now in wide use, where doctors must reduce charges when reserves are inadequate; and the insurance-type plan which guarantees payment to physicians.

One fact is clearly shown. Somebody has to pay for patients' medical care . . . and often it's the physicians, themselves.

If you haven't already read this article, be sure to do so. It's interesting, educational and brief.

HBA PROMOTES AMA TELEVISION SHOW

Believing the "March of Medicine" series of television shows to be an outstanding public service, the Hospital Benefit Association used its advertising facilities to help create interest in the most recent showing, which was March 11th.

A four-inch ad on the TV page of both Phoenix newspapers was devoted to promotion of the "March of Medicine." In addition, the audience of "The Visitor", HBA's own show which immediately preceded the AMA show, was urged to stay tuned for the "March of Medicine."

BBB BOOKLET GIVES M.D.'s FACTS ABOUT HEALTH INSURANCE

An excellent booklet, "Facts You Should Know About Accident and Health Insurance," published by the Better Business Bureau, can be of great help to physicians when patients have "insurance problems."

The booklet outlines simply and understandably just what should be reasonably expected from health insurance plans, and points out why certain limitations should be expected.

A single reading of the BBB booklet will provide a liberal education on health insurance. When your patients have questions regarding insurance, you will be glad you have this information.

This booklet is available at the Better Business Bureau for 10c per copy, but we will be happy to save you the dime and the trip to the BBB office. Simply clip and mail the enclosed coupon, and we'll send you the "Facts" booklet without charge or obligation.

Hospital Benefit Association
Box 1272
Phoenix, Arizona
Please send free "Facts" booklet.
Name .....
Address .....
City .....

MEET OUR DIRECTORS

UEL CLAY BOBBITT

Uel Clay Bobbitt, a prominent Phoenix certified public accountant, has been a member of the Board of Directors of the Hospital Benefit Association since its founding in 1944.

Born in Iowa, Bobbitt moved to Arizona in 1919, after graduating from the College of Emporia in Kansas and serving in the Army.

In 1941, Bobbitt was certified as a public accountant, and has had offices in Phoenix ever since. He is a past president of the Arizona Society of Certified Public Accountants, and has been a long-time member of the American Institute of Accountants.

Have you found what's causing my earache, doctor?

CHOGRAM is now in use. A cocaine-like preparation (Xylocaine) is inhaled in the form of an aerosol. The aerosol may be produced by any sort of nebulizer-plus-pressure. . . . The completeness of local anaesthesia is amazing, and catheterization of the bronchi produces little or no cough reflex. This, as you may remember from past attempts, (unless you are an orthopedist or ophthalmologist), should remove the chief barrier to placing the oil exactly where you want it. . . . The procedure allows one to use less oil, but also requires only 1 or 2cc of the Xylocaine.

A Dr. Ralph Gaucher from northern California has written a humorous essay which may reach you in the daily papers before you see it here. He calls it "THE PILLAPARAPROB", which means 'the pill which parallels your problem'. . . . The idea came to him when he was given a sample pill with a quick acting exterior and a slow acting interior. Why not a pill with multiple layers which could be timed to needs?! "After all, man isn't a simple mechanism with ONE need. He might need more bile now, more sleep later, a pat on the head tonight, a kick in the pants tomorrow morning". For every problem a layer of drug! . . . His "week-end pillaparaprob" contains pepsin, benzedrine, Spanish fly, seconal, benzedrine, soda bicarb, cascara, etc., etc. . . . You can figure out the uses of the various layers yourself, just like the readers of the newspapers. The original article in a medical journal was explicit, but the public prints probably won't be.

Seven or eight years ago Dr. John Barnwell mentioned, during a visit to Tucson, that he was about to start on the apparently hopeless task of getting A CHEST X-RAY on all of the employees of the V.A. He heads the TB section. . . . That gleam in his eye has reached the point where a recent report says that the VA has screened 3,217,000 persons for TB in the past 4 years. The figure includes 2,513,000 patients and 704,000 employees. . . . Active pulmonary TB was found in 12,740 and inactive in 34,470! Nearly 91,000 other chest abnormalities were also discovered. . . . Viva Juan!!

'HOSPITAL TOPICS' describes the newest CO-OPERATIVE DIAGNOSTIC-SCHEME in "Specialists on Call". . . . Nine hospitals in Kansas and Colorado are connected by a leased-wire AT&T communication system. The hospitals range in size from 24 to 120 beds, except for the consultant hospital in Wichita. There is a teletype in each. . . . The small hospitals couldn't afford resident specialty opinions, such as a pathologist, and when specimens were sent away the reply was delayed a week. . . . Dr. W. J. Reals conceived the hookup, and the needy hospitals (sectarian and non-sectarian) rushed to implement it. The current surgeon-to pathologist-to surgeon, by way of airmail, special delivery, and teletype is less than 24 hours. The teletype is used for other hospital needs, including a purchasing service, exchange of information, etc.

Briggs, Walters, and Byron of Los Angeles have demonstrated that, if an intrapleural catheter attached to a water-sealed bottle is used to treat SPONTANEOUS PNEUMOTHORAX, the lung will be expanded in an average of three days. . . . If a needle and water-seal are used it requires 29 days; if aspiration is used, 22 days; if bedrest only is used, 34 days. . . . The technic is simple, but a chest surgeon is best qualified to do the job. . . . (The way by which this trio of authors began practice together also makes a story. They all worked for a VA hospital 5 years ago. They all wanted to go into private practice. The only way to do so was by construction of a new building. It would cost $250,000. One of the three surprised the others by saying "I'll build it." . . . It just happened that his FAMILY builds bodies for automobiles. You can figure who it was by looking at the names of the authors).

WORKDAY OF THE SOVIET PHYSICIAN*

Mark G. Field
Cambridge, Massachusetts

THE lot of the Soviet physician is not a happy one as judged from a long and detailed study recently published in the Soviet Union by the *Literary Gazette*, the influential and official organ of the Union of Soviet Writers. Entitled "Hours and Minutes of the Physician," the article reveals several grave shortcomings in medical work.

In the first place the patient load is so great that not even the *official* norm of 10 minutes for each can be observed by the physician. Thus, in 2 cases reported as typical, a physician saw 22 patients in 3 hours, and another saw 26 in 3½ hours. Needless to say, careful examination and even civil conversation with the patient are almost impossible. This time is further whittled down by the tremendous amount of paper work that must be done in the form of endless forms and statistics. Thus, of the 180 minutes spent by the first physician, 33 were devoted to listening to and examining patients (an average of one and a half minutes per person), 9 in measuring blood pressure, 56 in reading and filling in case histories and the rest, or about half, on paper work.

In a typical polyclinic, every month doctors must supply statistical figures, and every six

*Reprinted from the New England Journal of Medicine, Feb. 4, 1954.

months the polyclinic turns in a table that is 4½ feet long and contains 87 charts and 700 figures. No one, however, has been able to provide a satisfactory explanation of the use of these statistics by the Ministry of Health.

Furthermore, as a result of an order issued in 1949, physicians must work in inpatient and outpatient departments; this has meant an increase in the number of hours spent at work, and the typical day of the Soviet doctor is from 8 a.m. to 6 p.m. This has also led to a daily run from polyclinic to hospital and vice verse, with every physician overworked and watching the clock. In addition, almost every evening the physician must attend lectures or meetings for 2 more hours. Returning home at 8 p.m., he must complete the paper work not finished at the office. This takes an additional 2 hours. Since the majority of doctors are women, there is little time left for housework or for care of children.

Nor do doctors have enough time to carry on research work based on their daily routine, or to keep up with the medical journals. Physicians are also "borrowed" by the local organs of health for various assignments, thereby increasing the load on the other physicians, and many an experienced practitioner is put permanently behind a desk, where he has no chance to perform the work for which he was trained. Furthermore, the medical districts, which were originally designed to service 4000 people, now have 5000, 6000 and even 7000 people registered so that the lines in front of the doctors' offices are growing longer and longer whereas the number of doctors assigned to these districts has remained approximately the same. Medical propaganda has convinced the population to go and see the physician "at the smallest discomfort." This further increases his load. It is thus doubly impossible for the physicians to enact prophylactic measures and to keep the entire population under observation as they are urged to. The authors of the article propose several measures to remedy the situation.

A month later, the *Literary Gazette* published a resume of letters that had been sent in by readers in response to the article. Most of the letters confirmed the impression that the situation described was not a unique phenomenon, but typical of the entire Soviet medical setup. Letters particularly criticized the "paper flood" to which the doctor was subjected, emphasized the necessity of a careful examination and the value of conversation between patient and doctor, stating that "a psychotherapeutic talk sometimes has more effect than a spoonful of medicine," and urged a revision of the official 10-minute norm. Suggestions were also offered to keep physicians working for long periods in either inpatient or outpatient departments. Finally, the question of material rewards was broached. Doctors should receive more pay, their vacation time should be extended from 12 to 24 days a year, the Government should be more careful in seeing that the physicians get social recognition in terms of medals and orders, and finally the work and the life of the doctor should be improved to provide, in turn, for better care and health of the Soviet population.

The frankness of this criticism, unusual for a Soviet publication, may well indicate that the problem of the position and the work of the Soviet physician will receive more attention from the Government. Whether this will result in any appreciable improvement of his lot is still to be seen.

Interesting TOPICS

DR. JACK WITTEN (North Tazewell Va.) AND HIS 'BOYS'

THE work of Dr. Jack W. Witten of North Tazewell, Va. with under-privileged boys has again come into the national lime-light. This work is unique in many respects. In the first place, it is a one man job, carried on for forty years, without appeal to the public for funds, and that alone should make it unique. It has been carried on by a busy general practitioner who is, in addition, a well known member of the Virginia Legislature. The latest writeup of Witten's "hobby" is in Medical Economics of March, 1953, page 139, with several excellent photographs, to which any one interested is referred for details.

The reason for this "plug" is two-fold. The writer was probably the first of the long series of "boys" influenced and stimulated by J. Walter Witten, as he was called back in the early days. Influenced by him during premedical school days, I changed vocational plans and entered the Medical College of Virginia at Richmond, Va., one year after Witten. We two young doctors came to Arizona together in 1906, but our plans to practice together did not turn out as anticipated and Witten went back to Virginia. He came back to Arizona about 1910, accepting position as assistant to Dr. Murietta, then chief surgeon for the United Verde Hospital at Jerome, Ariz. When Murietta left Jerome, Witten also resigned and returned to Virginia about 1913, starting his long years of service to community, state and country,—including his work with boys. Service in World War I in France has been the only interruption to his practice and "raising boys", except the service in the State Legislature, to which office he is periodically re-elected on a non-partisan ticket. He probably has enough "graduates" of his unofficial boys' home scattered through Virginia to elect him governor of the state, should he desire this. But he does not. He is satisfied to render service to his community, to see his boys grow up into honorable manhood and successful vocations. Truly a faithful servant of good works. Arizona, as well as Virginia, should be proud of him. — W.W.W.

HOW ABOUT HAWAII?

Many otherwise well informed citizens know little about Hawaii. Just ask your postmaster how often they hear the inquiry, "What is the postage rate to Hawaii?" Those who ask evidently still do not realize that Hawaii is a part of the United States, and the postage rate is the same as to any other part of the U.S. The same is true of Alaska. When the politicians get through kicking the matter around as a political football, both Hawaii and Alaska will take their places in the roll of States. Thus the Weinerman Report on the "Public Health and Medical Care in Hawaii," is timely and interesting. This is a 182-page report and has been summarized in the Hawaii Medical Journal of January-February, 1953.

"In general, the fine health record of the Territory and the achievements of its modern public health and medical care programs deserve the recognition and commendation of the rest of the country." — W.W.W.

TOXIC EFFECTS OF PHENYLBUTAZONE

(Butazolidin). Two articles by Nissim and Pilkington and J. C. Leonard, in British Medical Journal, June 13, 1953, stress the dangers of using this drug carelessly and without frequent (daily) observation of the blood condition. One of the authors says it should be limited to hospitalized patients. There is a strong temptation to be careless in the use of Butazolidin, because of its effectiveness,—but the very conditions in which it is most effective are also those in which it is most dangerous,—the recurrent types of arthritis (rheumatoid and gouty),—the danger being in the temptation to prolong the administration or repeat it frequently.

If you want to use Butazolidin, remember these dangers and guard against them by frequent blood examinations, keeping the dosage at the minimum which will produce the desired effect, and limiting the length of time over which the drug is administered. W.W.W.

Organization PAGE

Medical Organizations and Lay Medical Groups are invited to submit news for this page to Norman A. Ross, M.D., Professional Building, Phoenix, Arizona.

On this page will be reported activities of lay and medical organizations that are a part of the physicians' citizenship responsibility.

HEALTH INSURANCE COUNCIL'S " ACCIDENT & HEALTH COVERAGE IN THE UNITED STATES"

(From the Editor's file for this page)

ANNUAL SURVEY – SEPTEMBER 1953

"THIS survey reveals the number of persons protected at the end of 1952 by all types of voluntary health insurance plans, including those underwritten by insurance companies, Blue Cross, Blue Shield, and other types of organizations providing accident and health protection."

VOLUNTARY HEALTH INSURANCE – 1952

Plan	Hospital	Surgical	Medical	Loss of Earnings
Insurance Plans	51,714,000	48,817,000	15,275,000	38,000,000
Blue Cross Plans & Plans Sponsored by Medical Societies	43,475,000	27,773,000	18,321,000	
Independent Plans	5,364,000	4,794,000	5,150,000	
GRAND TOTAL	100,548,000	81,384,000	38,746,000	38,000,000
Additional Persons Protected:				
Compulsory Plans	10,000,000			
(Indigents and Pensioners; Specialty Coverage, Industrial, and Accident, not determined)				

MAJOR MEDICAL EXPENSE (Deductible Catastrophy, Health and Accident Insurance, a program based on the standard automobile collision policies.)
700,00 policies in this new deductible program–insurance up to $10,000 maximum, paying for hospital, surgical, and medical expense of any and all individual illness or injury.

ANSWER THESE QUESTIONS:

Where's the saturation point? What are the duplications? Where is this year's increase? Can the new "major medical expense" programming continue its phenominal growth? What are its limitations? What will be its effect?

WRITE TO:

Health and Accident Underwriters Conference
208 South LaSalle Street
Chicago, Illinois

This survey is free. Ask to be placed on their mailing list for the 1954 issue.

ARIZONA *Pharmaceutical* PAGE

YOUR FUTURE!!!!

YOU, doctor, are building the foundations for all of your future, in your movements today. We are all doing that and, certainly, it behooves each one of us to honestly analyze some of our actions and our suggestions.

I am going to be brutally frank in stating that the members of all of the health professions are constantly being subjected to the merciless scrutiny of the hard-earned dollar. It has become a familiar adage to have our patients and customers complain about the exhorbitant prices being charged by Doctor Blank, Druggist Jones, Nurse Smith, Dentist Brown or any of the hundred and one others who deal in the health of the public. We have complaints about the charges on hospital bills, rest homes, etc. Last evening I read an extremely derogatory article in the Veterans of Foreign War Magazine, excoriating the members of the American Medical Association for their stand on medical services to the past members of the armed services, through the Veterans Administration. This is only one instance. There are hundreds of others every day. WHAT DOES IT ALL ADD UP TO?

You, doctor, together with the rest of us are adding to that picture every time we endeavor to explain to inquiries in a manner detrimental to the members of any of the other professions. You tell John Jones you will shop around among the various pharmacies in his city and find which of them will fill his prescription the CHEAPEST. Doctor this is not fanciful at all. It is happening today and every day. It happened last week in the city of Tucson and we have documented proof of it to substantiate our statements. Its really a deplorable situation you all should take cognizance of and endeavor to remedy within your own ranks. Entirely too many of you AND OF US advise our patients and customers on matters not relative to their treatment.

Pharmacists throughout the country are beginning to believe they will be forced to retaliate in kind and, believe me, it is a situation demanding immediate attention. It would be a most unfortunate happening to have members of the health professions pitting themselves against each other merely to save those dealing with them a pittance on their medical costs. Certainly much goes into a visit of a patient to the office of a physician that must be paid for. It would not behoove a pharmacist in recommending a physician to tell that future patient that doctor so and so only charges $2.00 for an office call and $3.00 for a house call with the further inference that anyone charging more than that amount is a robber and should not be trusted. I don't believe you would ever want that to happen would you? Conversely doesn't the same hold true when you tell your patient to take his prescription to a particular drug store because you have been inquiring around and find that store to have the CHEAPEST medicine in your locality.

What is your future? Together ALL the members of our health services have added much to our present status. Together we have been able to successfully stand off any attempt to bring about the socialization of medicine and medications. I have written this article very frankly and would like to have you consider it on the most friendly basis. We have a problem, brought about by the particularly high prices of our current medications, which demand solution not on the basis of dollar consideration but upon the basis of the general welfare. Continued denouncements will only lead to unpleasant relations and it is my prayer that we shall all recognize the status of those with whom we are working.

THE Professional BOARD

CRIPPLED CHILDREN IN ARIZONA

George A. Williamson, M.D.
Phoenix, Arizona

ONE of the most gratifying programs under the supervision of the Department of Public Welfare is that which deals with the care of crippled and handicapped children. Starting with the premise that "every child should have a change to lead a normal, useful, productive and healthful life" there are no limits to which we should restrict ourselves in attaining these aims.

The program is handled through out-patient clinics, hospitalization, and convalescent care in Tucson and Phoenix by a staff of orthopedic surgeons, consultants in all the various specialties in addition to a closely knit organization of non-medical and administrative personnel. Field clinics are held in various locations in the state so that new cases can be examined and old cases reviewed to determine the adequacy of the treatment and the need for further care. These clinics make it possible for many needy patients to have examinations and adjustments made on their appliances and braces without having to make the costly trips to Phoenix or Tucson.

About 2000 children are registered for the Crippled Children Services in Arizona and this figure does not include the crippled children from the many Indian tribes who reside within our State boundaries.

During the past year approximately 400 children were admitted to the Phoenix Treatment Center. The percentage of occupancy of the beds at the Center was 96.63 indicating the efficiency with which all available space is being utilized. The average length of stay in the Treatment Center was 44.6 days. Maintaining an active turnover of patients makes it possible to give service to the greatest number. Children are returned to their homes as rapidly as possible so that parents continue to realize their responsibilities for the home care and supervision of the child's welfare. Approximately 10,000 physiotherapy treatments were administered at the Center in the out-patient and in-patient departments. The cost of operating this program is between $305,000 and $315,000 with approximately $15,000 to $25,000 being paid by reimbursements. It is essential to maintain this program in a healthy energetic condition so that adequate funds must be made available. Last year $268,000 was received for the operation of the program but with expansion of various phases additional funds are needed — an appropriation of $295,000 is being requested from the legislature next year.

The program of crippled children care is restricted so as to exclude all reservation Indians. These children are wards of the Government and are referred to the U. S. Indian Service for care. Through the understanding and cooperation of the Indian Service it has been possible to afford a fairly satisfactory program of care for them. Two clinics are held each year in the northern part of the State where children are brought by the nurses, teachers, and social workers who are serving with the Indian Service on the reservations. Those needing treatment are listed and arrangements made for their care. Some of these children are sent to the Shriners Hospital in Salt Lake City or to a hospital in Chicago, but the majority are brought to the Phoenix Medical Center (Indian) Hospital as beds are available. Efforts are being made to expand the services which are available as rapidly as possible. Many new clinics are being planned for this next year to reach out onto the reservations of the Pima, Papago, Apache and other tribes. We have been struck rather forcibly by a chance phrase to the effect that "Indians are people, too" and are subject to the same disabilities, diseases, and deformities as their white neighbors. A resolve to reach out into their remote and primitive homes with a helping hand makes the work among them stimulating and rewarding.

It would seem that the work of the Crippled Children Program could be further improved by the enlargement of the school program at the Treatment Center. The construction of additional facilities so as to make the necessary surgical treatment available at the Center would eliminate the necessity of transfering children to other Phoenix hospitals for this phase of their care. It would seem advantageous to provide a program of complete care under one roof as is done in many other states.

The enthusiastic working together of the orthopedic surgeon, physician, social agency, and an intelligent, cooperative legislative group is necessary for the proper care of crippled or handicapped children. When optimum efficiency in the relief or care of those, crippled by conditions amendable to orthopedic treatment has been attained we can finally direct our attention to the next great problem — prevention.

The American Congress of Physical Medicine and Rehabilitation

The 32nd annual scientific and clinical session of the American Congress of Physical Medicine and Rehabilitation will be held September 6-11, 1954, inclusive, at the Hotel Statler, Washington, D. C.

TAPE RECORDED POSTGRADUATE SERVICE AVAILABLE

NATIONAL distribution of a new means of communication for medical learning has been undertaken by the California Medical Association through its recently-formed non-profit subsidiary, Audio-Digest Foundation.

Using tape recorded material, the Foundation makes available to doctors everywhere three "postgraduate services" designed to save their time while increasing the scope of their practice-useful knowledge.

The basic service is the weekly issuance of a one-hour tape for general practitioners, on which are recorded from 20 to 30 abstracts of the best in current medical literature embracing all fields. These articles are screened by a board of medical editors of which Edward C. Rosenow, Jr., M.D., Pasadena, is editor in chief. As a corollary service, Audio-Digest offers semi-monthly digests in the fields of surgery, internal medicine and OB-Gyn. The third service is tape-recorded lectures and panel discussions on one-hour reels for individual or group purchase. Many of these lectures are illustrated by film strips made from the speaker's own slides and cued by him in the recording.

"One of the most appealing factors about these services," Dr. Rosenow said, "is that they are of definite, practical value to the physician. Much of the literature digested would not ordinarily come to the busy practitioner's attention. And the advantages of hearing world-renowned authorities in medicine and surgery at your own hospital staff meetings or in your own living room are obvious."

Dr. Rosenow added that reserve funds accruing from the distribution of these tapes are specifically earmarked by the California Medical Association for distribution among the nation's medical schools, possibly through the AMA's National Education Foundation.

Headquarters offices for Audio-Digest Foundation are at 800 North Glendale Avenue, Glendale, California. Mr. Jerry L. Pettis is Executive Vice President.

THE AMERICAN NATIONAL RED CROSS

The major purpose of the Red Cross is that of serving humanity's needs in disaster in the community, the nation and the world.

This agency advises that its closest alignment with the medical profession is in teaching first aid, a program developed and constantly under revision by the American Medical Association.

Then, too, there is the gamma globulin program of the Red Cross, conducted at the request of the American Medical Association, supplying doctors with gamma globulin used in measles, polio, and hepatitis.

This agency serves all races and creeds. The Red Cross reaches each and every county in Arizona.

THE ARIZONA SOCIETY FOR CRIPPLED CHILDREN AND ADULTS, INCORPORATED, 207 Arizona Title Building, Phoenix, announces **regional itinerant clinics** in Pinal County at Coolidge April 4, and Mohave County at Kingman April 25, 1954. Physicians are invited to attend or refer their patients. Of the 465 children examined in these clinics to date 156 have been cerebral palsy cases.

Posture Clinics in Tucson's three junior high schools have located 280 children who can profit by a concentrated correctional program. Of these 115 are now under the prescribed treatment. This program is to be applied state-wide.

RELATING TO DEAD BODIES TISSUE, EYE, BONE, CARTILAGE OR BLOOD BANK

YOUR Association sponsored a measure for the donating or bequesting by any person of his body or any part thereof for the purposes of medical science and the rehabilitation of the maimed which became Senate Bill No. 42, introduced in the Senate of the Twenty-first Legislation of the State of Arizona, Second Regular Session. It provides:

"Any person who may otherwise validly make a will in this state may by will or other written, signed and acknowledged instrument dispose of the whole or any part of his or her body to a teaching institution, university, college, state department of health, facility designated or maintained by the anatomy board of Arizona, legally licensed hospital or any other agency or commission operating a tissue, eye, bone, cartilage or blood bank or any other bank of a similar kind designated for the purposes of medical science and the rehabilitation of the maimed.

"Persons so donating or bequeathing the whole or any part of their bodies under the provisions of this Act may designate the donee or may expressly designate the purpose for which his or her body, or any part thereof, is to be used, but such shall not be necessary. If no donee is named by the donor, then any hospital in which the donor may depart this life or any available doctor of medicine or medical surgeon shall be considered the donee and have full authority to take the body or the part thereof so donated and to transfer such body or part thereof to any depository referred to in section 1 of this Act for the purposes designated by the donor and if no such purpose has been designated, then for purposes in accordance with the intention of this Act.

"No particular form or words shall be necessary or required but any signed and acknowledged written instrument or any last will and testament or codicil shall be liberally construed to effectuate the intent and purpose of the persons wishing to donate their bodies or any part thereof for the purpose elaborated in this Act.

"Subject only to any provision of law relating to medical examination or autopsy of dead human bodies, any provision in any signed and acknowledged written instrument or last will and testament or codicil which donates the body of the donor or testator or any part thereof as provided by this Act shall become effective immediately upon the death of the donor or testator and the authority for any hospital, physician, or surgeon to remove said body or any part thereof shall be such signed and acknowledged written instrument or such last will and testament or codicil.

"Any statute to the contrary notwithstanding, no person, association or corporation shall be subject to liability for any act performed in carrying out such instructions of the donor or testator."

Declared an emergency, this Act passed both bodies of the Legislature and was approved by the Governor February 27, 1954, becoming Chapter 6 of the Laws of the State of Arizona—1954, amending Chapter 43, article 52, Arizona Code of 1939, by adding sections 43-5202a, 43-5202b, 43-5202c, 43-5202d and 43-5202e, and is now effective.

AN INVITATION

An invitation has been extended to all auxiliary members to attend the Thirty-first annual meeting of the Woman's Auxiliary to the American Medical Association which will be held in San Francisco, California, June 21 to 25, 1954. Headquarters will be at the Fairmont Hotel.

Woman's AUXILIARY

WHY THE "BRICKER AMENDMENT" IS IMPORTANT TO THE MEDICAL PROFESSION*

THE controversy stimulated by the amendment to the Constitution proposed by Senator Bricker and 63 of his colleagues has spread to every segment of our population, including the medical profession. The American Medical Association has received a number of letters from physicians during the past few weeks expressing various sentiments concerning the proposal. Some endorse the amendment wholeheartedly; others have deplored the intervention of organized medicine in what they consider to be a nonmedical issue; still others have requested additional information defining the threat to our system of medical care posed by our present method of negotiating and ratifying treaties.

On January 7, 1953, Senator Bricker and 63 co-sponsors introduced S. J. Res 1, 83rd Congress, which proposed the adoption of a constitutional amendment limiting the treaty-making authority. This resolution was referred to the Senate Judiciary Committee together with S. J. Res. 43 (sponsored by the American Bar Association). On June 15, 1953, the committee submitted a favorable report on S. J. Res. 1, with amendments, and recommended that it be adopted. The amended version of the resolution, as approved by the committee, stipulated that any provision of a treaty that violated the Constitution would be invalid and that the treaty power could be used to establish or modify internal law in the United States only through the enactment of domestic legislation that could have been adopted in the absence of such treaty.

In tracing the interest of the medical profession in the Bricker amendment, it is important first to recognize the fact that treaties become the supreme law of the land if ratified by two-thirds of the Senate present and voting. In addition, it must be noted that significant changes have occurred during the past few years in the scope of treaties and executive agreements negotiated by the executive branch of the government. Although these instruments formerly involved only international matters, there are now pending treaties or executive agreements whose ratification would change our domestic laws.

In the health field three specific situations can be explored. They deal with the activities of the United Nations treaties of friendship with other countries and the conventions of the International Labor Organization.

The United Nations Charter, which was ratified in 1945, has two general sections that lay the framework for broad treaty provisions in the field of health.

Article 55 provides in part: "The United Nations shall promote solutions of international, economic, social, health and related problems."

Article 56 provides that "all members of the United Nations pledge themselves to take joint and separate action in cooperation with the organization for the achievement of the purposes set forth in Article 55."

Agreements and treaties negotiated pursuant to these provisions could fundamentally change medical practice in this country if ratified by two-thirds of the Senate present and voting.

The second example deals with a series of friendship treaties that were before the Senate this past year. These include treaties with Denmark, Holland, Israel, and Greece, which dealt with immigration quotas, citizenship requirements, and matters of professional licensure in the various states. If these treaties had been ratified as originally prepared, some of the requirements of the state medical licensing boards would have been abrogated.

The International Labor Organization, an affiliate of the United Nations, in June, 1952, adopted a convention known as the "Minimum Standards of Social Security." This convention includes almost all of the socialist medical proposals that have until now been rejected by the Congress. If this convention is ratified under the existing provision of our Constitution, government control of medicine will have been achieved. Because of the danger of the socialization of medicine via international treaty, the American Medical Association favors a redefinition of existing treaty-making powers.

*Reprinted from The Journal of the American Medical Association, Feb. 20, 1954, Vol. 154, p. 680.

COUNTY MEDICAL SOCIETY OFFICERS FOR 1954

County	President	Secretary
Apache	Jasper W. Davis, M.D. McNary	Jasper W. Davis, M.D. McNary
Cochise	Joseph Saba, M.D. 19 Subway, Bisbee	P. Paul Zinn, M.D. 47 Main St., Bisbee
Coconino	Jay L. Sitterley, M.D. 223 W. Cherry, Flagstaff	Ann L. Martin, M.D. 223 W. Cherry, Flagstaff
Gila	Alexander J. Bosse. M.D. 118 N. Broad St., Globe	Cyril M. Cron, M.D. Box 1207, Miami
Graham	John W. Moon, M.D. 803 — 7th St., Safford	Frederick W. Knight, M.D. 618 Central Ave., Safford
Greenlee	Carl H. Gans, M.D. Morenci Hospital, Morenci	Thomas B. Jarvis, M.D. Morenci Hospital, Morenci
Maricopa	Donald A. Polson, M. D. 550 W. Thomas Rd., Phoenix	Wallace A. Reed, M.D. 301 W. McDowell Rd., Phoenix
	(SOCIETY OFFICE: 2025 N. Central Ave., Phoenix)	
Mohave	Walter Brazie, M.D. Masonic Building, Kingman	Francis M. Findlay, M.D. Masonic Building, Kingman
Navajo	Myron G. Wright, M.D. 122 W. 3rd St., Winslow	Leo L. Lewis, M.D. 101 S. Williamson, Winslow
Pima	Dennis Bernstein, M.D. 1624 N. Norton Ave., Tucson	Walter T. Hileman, M.D. 23 E. Ochoa, Tucson
	(SOCIETY OFFICE: 80 S. Stone Ave., Tucson)	
Pinal	Earl W. Wade, M.D. Fabricant Bldg., Eloy	Elmer L. Heap, M.D. 1518 Main St., Florence
Santa Cruz	Emile C. Houle, M.D. 102 Grand Ave., Nogales	Charles S. Smith, M.D. Gebler Bldg., Nogales
Yavapai	Louis A. Packard, M. D. Elks Building, Prescott	Clarence E. Yount, Jr., M.D. Box 1626, Prescott
Yuma	Robert B. Bailey, M.D. 240 — 1st Ave., Yuma	Robert A. Stratton, M.D. Box 1426, Yuma

LABORATORIES